In the Claims:

Cancel claim 12, without prejudice.

Please amend claims 1, 13, and 15 as follows.

1. (Currently Amended) An irradiation device for therapeutic applications for the treatment of primary T cell mediated skin disorders including atopic dermatitis (neurodermatitis), cutaneous T cell lymphoma, lichen ruber, alopecia areata, systemic lupus erythemetodes and psoriasis and cosmetic applications including cosmetic tanning, wherein said irradiation device comprises at least one optical radiation source which, on an area to be irradiated, is operatively arranged for generating an irradiance in a first wavelength range including 400nm to 440nm of ~~at least 20~~ greater than 60 mW/cm^2 and generating an irradiance in a second wavelength range including 300nm to 400nm of less than 21% of the irradiance in the first wavelength range and a cooling unit for cooling a surface of the area to be irradiated.

2. (Previously Amended) The irradiation device of claim 1, wherein said optical radiation source is a mercury low-pressure discharge lamp comprising a phosphor selected from the group consisting of $Sr_2P_2O_7$:EU, $(SrMg)_2P_2O_7$:Eu, $Sr_5Cl(PO_4)_3$:Eu, $BaMg_2Al_{18}O_{27}$:Eu, $SrMgAl_{18}O_{50}$:Eu, $BaMg_2Al_{16}$:Eu:Mn, $Sr_3(PO_4)_2$:Eu, $Ba_3(PO_4)_2$:Eu, $CaWO_4$:Pb and $CaWO_4$.

3. (Previously Amended) The irradiation device of claim 1, wherein said optical radiation source is a metal halide lamp having a firing gas, mercury and at least one metal halide additive selected from the group consisting of gallium indium iodide, gallium iodide, selenium, antimony, zinc and cadmium.

4. (Previously Amended) The irradiation device of claim 3, wherein a weight ratio between said mercury and said at least one metal halide additive is 10:100.

5. (Previously Amended) The irradiation device of claim 1, wherein said optical radiation source comprises a discharge lamp including two electrodes arranged in a quartz tube, wherein electrode regions of said discharge lamp proximate said two electrodes comprise zirconium oxide, thereby exhibiting a partially reflective characteristic.

6. (Previously Amended) The irradiation device of claim 1, further comprising one of a glass pane as a UVB filter and a transparent, UV-opaque plastic as a UV filter arranged between said optical radiation source and the surface to be irradiated.

7. (Previously Amended) The irradiation device of claim 1, further comprising a UVB filter comprising an evacuated casing tube arranged around said optical radiation source, wherein said evacuated casing tube comprises a glass pane.

8. (Previously Amended) The irradiation device of claim 7, wherein an inner side of the casing tube is coated with a phosphor selected from the group consisting of $Sr_2P_2O_7$:EU, $(SrMg)_2P_2O_7$:Eu, $Sr_5Cl(PO_4)_3$:Eu, $BaMg_2Al_{18}O_{27}$:Eu, $SrMgAl_{18}O_{50}$:Eu, $BaMg_2Al_{16}$:Eu:Mn, $Sr_3(PO_4)_2$:Eu, $Ba_3(PO_4)_2$:Eu, $CaWO_4$:Pb and $CaWO_4$.

9. (Previously Amended) The irradiation device of claim 1, wherein said optical radiation source includes an electrode-free mercury metal halide lamp comprising a quartz bulb filled with at least one

dopant selected from the group consisting of gallium, gallium iodide, gallium bromide and gallium chloride , said optical radiation source further comprising a resonator formed by a metallic shield and at least one magnetron with an antenna operatively arranged for introducing electromagnetic energy into said resonator.

10. (Previously Amended) The irradiation device of claim 9, wherein said resonator is an E_{01} mode resonator for the electromagnetic radiation introduced by said magnetron.

11. (Previously Amended) The irradiation device of claim 1, further comprising an IR filter.

12. (Canceled)

13. (Currently Amended) The irradiation device of claim ~~12~~ 1, wherein said cooling unit comprises a transparent casing tube with an inlet and an outlet, said transparent casing tube being arranged around said optical radiation source, and an IR-absorbent coolant is circulated via said inlet and said outlet (13).

14. (Previously Amended) The irradiation device of claim 13, wherein said coolant comprises one of water and silicone oil.

15. (Previously Amended) A method for treating primary T cell mediated skin disorders, comprising the step of treating a subject with an optical radiation source that generates, on the area to be irradiated, a first irradiance in a first wavelength range including

400nm to 440nm and a second irradiance in a second wavelength range including 300nm to 400nm, said first irradiance being at least 20 W/cm^2 on the area to be irradiated and said second irradiance being less than 21% of said first irradiance on the area to be irradiated, such that the subject receives an irradiation dose within the range including 10 J/cm^2 to $200J/cm^2$ from said first irradiance.